June 24, 1958 H. BAER 2,839,831

SHEATHED KNIVES

Filed Dec. 7, 1955

FIG. 1.

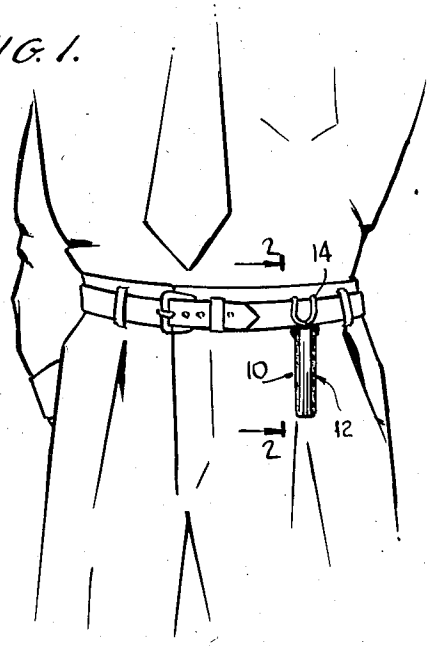


FIG. 2.

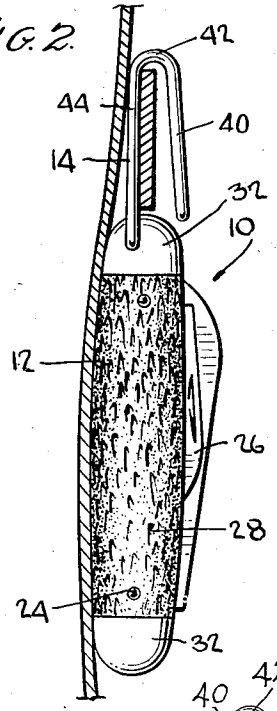


FIG. 3.

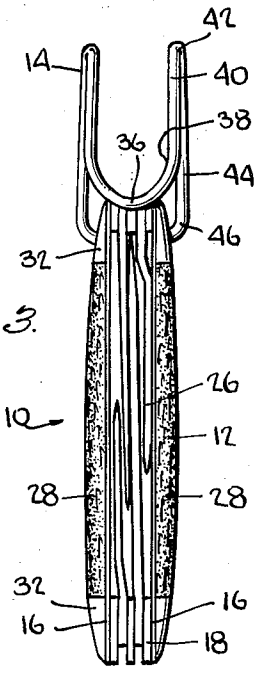


FIG. 6.

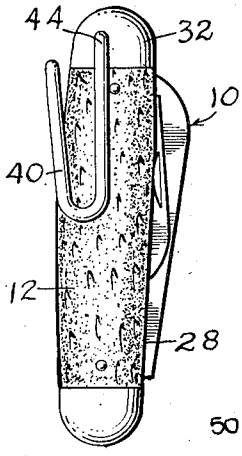


FIG. 4.

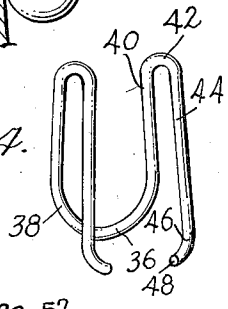
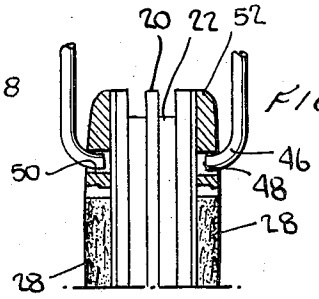


FIG. 5.



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2,839,831

SHEATHED KNIVES

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Application December 7, 1955, Serial No. 551,631

3 Claims. (Cl. 30—296)

This invention relates to sheathed knives and is particularly adapted, although not so limited except as indicated in the appended claims, to a pocket knife with a fold-in blade.

It is an object of the present invention to provide a knife of the character described which can be conveniently and rapidly secured to a user's belt.

It is another object of the invention to provide a knife of the character described having a mechanism for detachably attaching it to a belt without opening the belt.

It is a further object of the present invention to provide a knife of the character described wherein the attaching mechanism comprises a single piece of material and, therefore, can be fabricated simply and quickly at a low cost.

It is still another object of the invention to provide a knife of the character described wherein the attaching mechanism can be folded compactly against the knife out of the user's way.

Other objects of this invention will in part be obvious and in part will be pointed out hereinafter.

The invention accordingly consists in the features of construction, combinations of elements, and arrangement of parts which will be exemplified in the construction hereinafter described, and of which the scope of application will be indicated in the appended claims.

In the accompanying drawings, in which is shown one of the various possible embodiments of this invention,

Fig. 1 is a front view of a knife embodying the instant invention, the same being shown dangling from a waist belt;

Fig. 2 is an enlarged view taken substantially along the line 2—2 of Fig. 1;

Fig. 3 is a front view of said knife;

Fig. 4 is a perspective view of the attaching mechanism separated from the knife frame;

Fig. 5 is an enlarged fragmentary view of an end of the knife with portions broken away to show the manner in which the attaching mechanism is secured to the knife; and

Fig. 6 is a side view of the knife showing the attaching mechanism in telescoped position on the knife.

Referring now in detail to the drawings, the reference numeral **10** denotes a knife constructed in accordance with the instant invention. Said knife includes an elongated frame **12** and an attaching mechanism **14**. The frame comprises two outer lining plates **16** between which blade receiving compartments are located. Against the inner surface of each plate **16**, an appropriately cut out side spacer **18** is disposed. A central spacer **20** is separated from each side spacer by a spring block **22**. The entire assembly is secured as by a rivet **24** to constitute the frame **12**. Various types of pocket knife implements and/or cutting blades **26** are pivoted by their tangs in the frame between the spacers on rivets (not shown). The blades are held in place by the pressure of the springs on their tangs. A scale **28** is secured on the outer surface of each plate **16**, between bolsters **32** at the ends of the frame. The bolsters are securely attached to the knife frame, e. g. by brazing.

The attaching mechanism **14** constituting the subject of the instant invention comprises a shackle fabricated from a stiff wire such as a heavy gauge steel wire. Said shackle includes a retroverted band **36** integrally connecting one set of ends **38** of a first pair of spaced reaches **40**. Said reaches are perpendicular to the axes about which the knife blades turn when swinging from closed to open position. The other set of ends of the first pair of reaches is joined by retroverted bends **42** to a second pair of spaced reaches **44**. The pairs of reaches diverge slightly from one another (see Fig. 2) in a direction away from bends **42**, and the second pair of reaches (**44**) is spaced from the first pair (**40**) about 3/8", this being somewhat greater than the thickness of a belt for the waist of a pair of trousers. The reaches comprising each pair diverge slightly from each other in a direction away from the retroverted bends **42** (see Fig. 3). Also, the reaches **44** are spaced from each other a slightly greater distance than that between reaches **40** (see Fig. 3) and extend a short distance below the bend **36**. The lower ends **46** of the reaches **44** are bent towards each other so that the tip **48** of each one is almost at right angles to its associated reach and substantially perpendicular to the longitudinal axis of the frame thereby constituting journals.

The journals are rotatably received in bearing openings **50** provided in the bolsters **32** at an end **52** of the knife frame (see Fig. 5). The tips **48** of said journals are spaced from one another a distance less than the width of the end of the frame (including the bolsters) at the point of attachment of the shackle. Thus, the reaches **44** must be forced apart in order to attach the shackle to the frame. They are biased to return to their original position when the tips enter the openings **50**, thereby permitting detachable gripping of the frame by the shackle. The additional length of the shackle on each side of the bend **36** provided by doubling the shackle at the bends **42** prevents the shackle from losing its shape even if repeatedly removed and reattached.

The distance between the bends **42** is slightly less than the thickness of the frame (including the scales) at a location on the frame embraced by these bends when the shackle is folded against the knife, whereby the bends are forced apart laterally when the shackle is folded against the frame and then biased to their original position securely to hold the shackle in closed position on the frame. The divergence of the reaches **40** localizes the pressure of the shackle against the scales and thereby avoids the necessity of employing undue force to swing the shackles to closed position.

The knife is used as follows: When extended, the shackle is pushed behind the user's belt, i. e., between the belt and the trousers with the bend **36** facing away from the belt. The shackle is maneuvered so as to slide the belt in between the pairs of reaches with the bend **36** on the outerside of the belt and the reaches **44** on the inner side of the belt. In this way, the knife as a whole is conveniently and rapidly attached to the belt without opening the same. The knife is likewise easily removed from the belt for use by slipping the shackle out from between the pairs of reaches; again, it is not necessary to open the belt.

The knife may be conveniently carried on the user's clothes when no belt is worn. For example, the shackle may simply be used with the bend **36** facing the wearer, the shackle being hooked over the waist band of the trousers.

When the knife is in use, the shackle may be folded out of the way (see Fig. 6). This is accomplished by rotating the shackle so that the frame is received between the two pairs of reaches. Rotation will be limited by

abutment of the bend **36** against the back of the frame, and as mentioned above the shackle will be held in place on the frame by the gripping action of the bends **42**. If desired, the shackle may be completely removed by spreading the reaches **44** and removing the journals from the bearing openings **48** in the frame.

It thus will be seen that there is provided a device in which the several objects of this invention are achieved and which is well adapted to meet the conditions of practical use.

As various possible embodiments might be made of the above invention, and as various changes might be made in the embodiment above set forth, it is to be understood that all matter herein set forth or shown in the accompanying drawings is to be interpreted as illustrative and not in a limiting sense.

Having thus described my invention, I claim as new and desire to secure by Letters Patent:

1. In combination with a knife having a frame from one edge of which blades are outfoldable, a stiff wire shackle having a first pair of spaced approximately parallel registered reaches, each reach having a lower end and an upper end, a retroverted bend joining said lower ends, and a second pair of spaced approximately parallel registered reaches, each reach of said second pair having an upper end and a lower end, a retroverted bend joining the upper end of each reach of the second pair to the upper end of a different reach of the first pair, the reaches so joined constituting a set of associated reaches, the reaches of each set of associated reaches lying in a plane approximately perpendicular to the planes in which the two pairs of reaches are respectively disposed, a tip at the lower end of each reach of the second pair, each tip being disposed at approximately right angles to its associated reach, said tips facing each other, and means at one end of the frame pivotally receiving said tips and permitting the shackle to swing into telescoped position against the frame in which the first named retroverted bend lies against the edge of the knife frame opposite to that from which the blades are outfoldable whereby when the shackle is swung into a position extending away from the frame the first named pair of reaches are closer to said edge from which the blades are outfoldable than to said opposite edge.

2. A combination as set forth in claim 1 wherein the reaches of the second pair are spaced apart a distance slightly greater than the spacing between the reaches of the first pair.

3. A combination as set forth in claim 1 wherein the reaches of the first pair converge toward one another and the reaches of the second pair converge toward one another in a direction toward their upper ends.

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